IN THE CLAIMS

Claim 1 (original): Method for scanner control in at least one scan axis in a laser scanning microscope, in which the scan field is subdivided into partial regions, a first image of at least one partial area generated by a forward scan being compared with a second image of the partial area generated by a back scan and a correction value being determined for the scanner control from the deviation between the first and second images.

Claim 2 (original): Method according to Claim 1, in which the scan field is divided into strips that form the partial areas.

Claim 3 (original): Method according to Claim 2, in which the cut direction of the strips lies parallel to the image edge of the scanned image.

Claim 4 (currently amended): Method according to ~~one of the preceding claims~~ claim 1, in which the longitudinal axis of the strips during line-by-line scanning is perpendicular to the direction of the scan lines in the image.

Claim 5 (currently amended): Method according to ~~one of the preceding claims~~ claim 1, in which the correlation of partial images is determined for each scan axis.

Claim 6 (currently amended): Method according to ~~one of the preceding claims~~ claim 1, in which deviations are determined from the correlation of the partial areas.

Claim 7 (currently amended): Method according to ~~one of the preceding claims~~ claim 1, in which the deviations are combined as support sites for a deviation curve and this deviation curve is used to determine a correction of the scanner control signals.

Claim 8 (currently amended): Method according to ~~one of the preceding claims~~ claim 1, in which the deviation curve is correlated with the individual frequency fractions of the scanner control (sine curves) for determination of the correction of the scanner control and correction values for the scanner control are determined via the correlation values.

Claim 9 (currently amended): Method according to ~~one of the preceding claims~~ claim 1, in which correction values are stored together with the time of the measurement.

Claim 10 (currently amended): Method according to ~~one of the preceding claims~~ claim 1, in which a comparison of correction values recorded at different times occurs.

Claim 11 (currently amended): Method according to ~~one of the preceding claims~~ claim 1, in which the optically recorded and/or electrically recorded frequency of the scanner is controlled or corrected with the determined correction values.

Claim 12 (currently amended): Method according to ~~one of the preceding claims~~ claim 1, in which the cut direction of the partial image lies parallel to an image edge of the scan field.

Claim 13 (currently amended): Method according to ~~one of the preceding claims~~ claim 1, in which the cut direction of the partial images agrees with a scan axis.

Claim 14 (currently amended): Method according to ~~one of the preceding claims~~ claim 1, in which the cut direction of the partial images has an angle to at least one scan axis.

Claim 15 (currently amended): Method according to ~~one of the preceding claims~~ claim 1, in which a test pattern is used to determine the correction.